

INTERNATIONAL SEARCH REPORT

International Application No
PCT/N02004/000340

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 E21B19/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 E21B E02B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 676 696 A (LAURSEN ET AL) 30 June 1987 (1987-06-30) cited in the application column 1, line 60 - column 2, line 64 figures	1,2,5,7, 9,13,15, 17,19, 20,23
A		22
X	US 4 230 186 A (LEWIS, JR. ET AL) 28 October 1980 (1980-10-28) column 2, line 64 - column 3, line 35 figures column 2, lines 32-40 ----- -/--	1-6, 16-19, 23,24



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
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- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

2 March 2005

Date of mailing of the international search report

09/03/2005

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3 953 982 A (PENNOCK ET AL) 4 May 1976 (1976-05-04) column 3, lines 29-42 figures -----	1,8
A	US 6 405 802 B1 (WILLIAMS MICHAEL R) 18 June 2002 (2002-06-18) column 2, lines 6-30 column 2, line 54 - column 3, line 45 figures -----	1,10-12

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/N02004/000340

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4676696	A	30-06-1987	NL 8402530 A	01-08-1985
			GB 2163466 A ,B	26-02-1986
			NO 853216 A ,B,	18-02-1986
			US 4717287 A	05-01-1988
US 4230186	A	28-10-1980	NONE	
US 3953982	A	04-05-1976	FR 2253976 A1	04-07-1975
			GB 1466349 A	09-03-1977
			GB 1466350 A	09-03-1977
US 6405802	B1	18-06-2002	AU 6515901 A	11-12-2001
			WO 0192683 A1	06-12-2001